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AR00710

MAJOR FEDERAL FACILITIES OUT OF COMPLIANCE

OR HAVING POTENTIAL HAZARDOUS WASTE

DISPOSAL PROBLEMS

REGION 6

The following report has been prepared to provide a brief summary of what are considered to be the most significant compliance problems at major Federal facilities in Region 6. The problems described are multi-media in that they include actual or potential problems in each of the three environmental media of AIR (SIP compliance), WATER (NPDES compliance) and HAZARDOUS WASTE (RCRA-compliance). The individual facilities are listed in an approximate order of priority determined by the apparent magnitude of the facility's total contribution to pollution of the local environment, and the order was subject to the judgement of the writer as to relative magnitude between the media.

1. KELLY AIR FORCE BASE, TEXAS TX 5622

Problem Media - Water and Hazardous Waste

a. Water problems - KAFB violated NPDES permit conditions by spreading dried sludge containing heavy metals from their IWTP on the ground in an area that drains directly into a nearby stream. We called the violation to their attention and they began hauling the sludge to an approved chemical landfill and discontinued the spreading practice. Texas Department of Water Resources (TDWR) soil sample testing results indicate elevated levels of several heavy metals in the spreading area, but TDWR ran no leaching tests to see if runoff water is likely to carry the metals into the stream. KAFB tested one sample of runoff water and no detectable amounts of the metals were reported. KAFB hasn't released the results of their soil sampling in the area, and TDWR says they won't decide whether to press for removal or containment of the sludge until they see the KAFB soil samples analyses. These have been requested from KAFB.

KAFB continues to have a problem with violations of the cadmium limit in their NPDES permit. Multiple excursions above the daily limit have been reported for 12 of the 13 months ending in June, 1982, and KAFB reports they have not yet determined the cause.

The TDWR also accused KAFB of causing a major fish kill in Leon Creek between September 28 and October 5, 1981, the incident apparently resulting from KAFB chemical drum washing procedures. EPA aranged a joint KAFB, TDWR and EPA meeting in December, 1981, to discuss the fish kill incident and other problems at KAFB which cast doubts on the effectiveness of pollution controls within the Base activities. KAFB described steps being taken and proposed to correct their problems and promised reports on status of the corrections. They sent us a chemical and waste handling regulation they developed for the Base's tenants and recently notified us that a study underway to determine needed improvement at the IWT Plant would be completed about the end of October. The State of Texas also recently notified KAFB of their intent to bring suit against them for this fish kill incident and violations of KAFB's State wastewater discharge permit. We have informed KAFB and the State that EPA will not interfere in the proposed action.

b. Hazardous waste Problem - After an August, 1980, inspection at KAFB, we requested information from them about possible contaminant migration from the industrial waste sludge drying pond, an old industrial waste pit ajacent to a former plating shop near Leon Creek, and an abandoned landfill under a part of the Base golf course ajacent to the Creek. We have only just received an Air Force report on initial investigations into past hazardous waste disposal practices at KAFB which indicates that these three sites are not the only inactive sites with hazardous waste pollution potential. The report identifies at least 16 sites with moderate to high potential for contaminant migration into surface or ground waters. These include 6 former landfills, 3 chemical or oil disposal pits, 3 sludge spreading areas, 3 spill areas and a used chemical storage area. The report recommends additional physical investigations at these sites to determine if there is contaminant migration and what corrective measures may be necessary. No additional word has been received from KAFB or the Air Force about the status or schedule of the follow-up investigations.

The State of Texas is also considering legal action against KAFB for violation of RCRA and the Texas Solid Waste Act by failing to list all facilities used to store hazardous wastes in their "Part A" application for an interim status permit. The facilities not listed are parts of the old domestic waste treatment plant and a waste "oil" pit.

2. TINKER AIR FORCE BASE, OKLAHOMA OK3646

Problem Media-Water and Hazardous Waste

a. Water problem - TAFB (1) has been violating their major industrial permit ever since it was issued in November of 1974, (2) is over five years past the statutory deadline for achieving BPT, and (3) they have not yet fully achieved BPT. We have met and corresponded with TAFB and other Air Force representatives to discuss the TAFB needs and corrective measures and to try to accelerate accomplishment of needed improvements and compliance achievement. A major improvement project began construction in March, 1982, on additional treatment capability designed to ultimately provide "BAT equivalent" treatment. The Base also recently implemented some in house process and operations changes recommended by their design engineers which have resulted in a marked improvement being indicated in recent DMR's submitted by TAFB. As of the end of March, 1982, the plant is consistently showing compliance with the limits for all but two pollutants monitored (hexavalent chromium and phenols). The magnitudes of the excursions for these two have also been reduced significantly over the past year. As of July, 1980, the TAFB plant was out of compliance on a total of six pollutants. We are also negotiating a Federal Facility Compliance Agreement with TAFB which calls for achievement of compliance by May, 1984, with limitations included in a new permit about to be issued. Those limitations were determined by State water quality maintenance regulations,, rather than a BAT standard, which is not expected to be forthcoming.

b. Hazardous waste problem - We recently received an Air Force report on initial investigations into past hazardous waste disposal practices which indicates that TAFB has several disposal sites with moderate to high potential for migration of contaminants into surface or ground waters. Five former landfills and two abandoned industrial waste pits are included among these sites. The Base has done some ground water monitoring with test wells at one of the landfills, which reportedly indicates no measurable contaminant migration. The Air Force report recommends additional physical investigations at the questionable sites to determine the existence and magnitude of contaminant migration and required corrective measures. No information has been received yet from TAFB or the Air Force about the status or schedule of the follow-up investigations.

3. PINE BLUFF ARSENAL, ARKANSAS AR 710

Problem Media - Hazardous Waste

Problem description - Recent Army investigations of past activities and disposal practices at PBA have identified 29 sites on the reservation where various hazardous materials have been dumped or buried through the years and a former was gas production area where the buildings remain contaminated with the production chemical residues. One of the dump sites is in the former chemical manufacturing area, which is the proposed site for a future plant to produce one of the components of a binary nerve agent. PBA included projects in the Army's FY 1983 pollution control budget to remove and/or contain and close in place, as appropriate, the hazardous waste at this site and for the demolition and removal of the contaminated buildings. The Army's 1984 budget will contain a similar project or projects for the other 28 identified sites. EPA and State representatives recently met with PBA, Corps of Engineers and Army contractors to (1) review plans for a landfill to receive soil & debris from the binary site and future production wastes, and (2) to provide guidance and a tentative schedule for review of a RCRA permit application for the landfill and issuance of the permit. PBA also submitted a RCRA interim status application for hazardous waste disposal, which includes the problem sites as well as the new landfill and other disposal activities to be continued. A final application for a RCRA permit is to be submitted to EPA in late 1982 or early 1983, along with closure and post-closure plans for all the sites. A recent EPA RCRA inspection identified 6 sites which are definite hazards and 17 sites potentially hazardous to surface or ground water. These include the same sites identified by the Army and programmed for correction.

4. FORT POLK, LOUISIANA

Problem Media - Water

Problem description - The South Fort Polk Sewage Treatment Plant, which serves the Main Post of the installation, has been unable to operate within its NPDES permit limitations almost from the time the permit became effective in November, 1974. A part of the problem is that Fort Polk's mission was expanded after the permit was issued, and the sewered population and sewage volume outgrew the treatment facilities. The Army constructed two major expansions of the treatment plant in an effort to keep up with the volume growth. The plant presently has the theoretical design capability to provide secondary level treatment for the current sewage load and to meet all the limits of the current permit, except for the flow and total parametric loadings, which do not reflect current loading conditions.

However, certain deficiencies in design and equipment of recent plant additions prevented the expanded plant from achieving its design capabilities and producing the effluent quality specified in the permit until recently. We issued an Administrative Order for corrective actions and Fort Polk responded with a plan outlining two correction projects which are nearly completed.

Fort Polk's ultimate plan for sewage disposal is to provide land treatment for the total S.T.P. discharge and eliminate an effluent discharge to Bundicks Creek. In what was supposed to be the final phase of their plan, they constructed a group of "rapid infiltration" basins in another drainage area to provide land disposal of the S.T.P. effluent. These basins were put into operation for 3 weeks during June, 1981, and observed infiltration rates were considerably less than their design capacity. Basins operation was suspended pending further field investigations by the Corps of Engineers to see if they could be made to function as originally intended. They concluded that the system, as constructed, has only about 36% of the required 3.8 MGD capacity. After considering possible alternative disposal plans, the Army has proposed to utilize the basins as holding or polishing ponds for the S.T.P. effluent and provide land treatment by overland flow of ponds effluent through heavily vegetated drainage swales or "baygalls" leading to Drake's Creek. EPA and State representatives met with the Army at Fort Polk in May, 1982, to discuss the proposal and observe the basins and one of the baygalls to be utilized. Fort Polk has since submitted a formal written proposal covering the plan and a request for a short term permit to implement it for an 18 months trial period, during which time they will conduct a special monitoring program to establish a relationship between effluent quality in the S.T.P. and ponds effluent and D.O. and nutrients in Drake's Creek. We and the State have told them we will give them a short-term permit for the trial period upon receipt of a Consolidated Permits Program application from Fort Polk. We are currently awaiting their application.

In connection with the same permit, Fort Polk is still experiencing breaks in a new sewage force main which was the subject of a previous Administrative Order we closed out. The main recently broke for the seventh time in a period of 23 months, and it appears positive correction will require replacement of the main or at least a large portion of it. The Army Construction Engineering Research Laboratory has been testing samples of the pipe to determine if the problem may be due to faulty material. We have not been informed of their findings.

Sewage treatment facilities serving North Fort Polk and the Toledo Bend recreation area and several vehicle wash racks, at both North and South Fort Polk, are covered under separate minor permits. There have been occasional violations on the part of the two treatment facilities, frequent violations by the wash racks, and the Army took steps to upgrade or eliminate the problem facilities. All the corrective work has been completed except for the Toledo Bend Sewage Treatment facility, and work on its correction is continuing. The Federal Facility Compliance Agreement, which we were trying to conclude with Fort Polk and which covered these minor problems, is no longer necessary and will not be pursued further.

5. LONE STAR ARMY AMMUNITION PLANT, TEXAS TX 57

Problem Media - Hazardous Waste

Problem description - Industrial wastewaters and sludges from past munitions manufacturing activities were disposed of in numerous pits and lagoons in production areas G, O, P, and Q. The pits and lagoons were all unlined and subject to overflowing and/or possible leaching of contaminants into surface or ground waters. Contaminants include TNT, RDX, lead and other heavy metals. Army field investigations indicated that subsurface soil surrounding the various disposal pits and lagoons is tight enough to prevent migration of contaminants through the soil to ground or surface waters. LSAAP initiated a program to contain and close all the lagoons and pits in place by dewatering, backfilling, and/or covering with an inpervious soil cap. Closure work on Areas P & Q is complete, and Area O work will be complete except for the grass cover by 10/82. Closure work on Area G ponds will begin after the new treatment facility, now under construction, is operable (10/82). Closure plans were given to the State regulatory agency in 7/82 and approval is expected by 9/82. Contract award is scheduled for about 10/1/82 and site work completion about 3/83. The new treatment facility will treat future waste water discharges from Area G.

The Army advises that all the lagoons and pits will be registered as hazardous waste disposal sites to prevent future use and will be monitored by a system of test wells for any possible horizontal or vertical migration of the enclosed contaminants through the soil. LSAAP has applied for interim status as a disposer under RCRA to cover the interim before the closure work is completed.

6. LONGHORN ARMY AMMUNITION PLANT, TEXAS TX 583

Problem Media - Air and Hazardous Waste

a. Air problem - The compliance status question described in previous quarterly reports has not been resolved, and it appears EPA's Air Branch is making no attempt to resolve it. Since they indicate no sense of urgency and Texas is (1) satisfied that LAAP is not violating the SIP with their open burning operations and (2) reporing LAAP as "in compliance" in the CDS, the existence of a real problem is questionable. Until such is identified at LAAP, this facility has been dropped from the Air problem list.

b. Hazardous waste problem - LAAP has three potential problem hazardous waste sites. One is a 23 acre former manufacturing area where TNT was manufactured during WWII and where the soil may be contaminated by "red water" residue subject to being carried by rainwater runoff or percolation into surface or ground waters. The other potential problem sites are (1) an unlined evaporation pond receiving washdown water from propellant loading operations and (2) an abandoned landfill in which wastes from the former TNT plant were buried. The

Army has installed 22 monitoring wells around the latter two sites to determine if there is contaminant migration through the soil into the ground water. Water and soil samples are being analyzed for suspect contaminants. Their investigations report indicates a migration problem at the evaporation pond and a potential nitrate migration problem connected with the landfill. Additional samples have been taken at the landfill and are currently being evaluated to make sure. Current plans are to install a treatment plant for the propellent loading area waste water and close the pond. A study to characterize waste quality and volume going to the pond is scheduled to begin 10/82, and the study results are to be used to determine future waste treatment processes and a method of closure for the pond. A study report is expected in mid 1983. Plans for the new treatment facilities will follow that report. At the TNT area, the Army is currently in the second, or monitoring, phase of its Installation Restoration Program (IRP) investigations, and the Phase II report recommending corrective measures is expected sometime in CY 1983. This report will also include recommendations for the abandoned landfill.

7. LOUISIANA ARMY AMMUNITION PLANT, LOUISIANA

Problem Media - Hazardous Waste

Problem description - Shallow underground water contamination is resulting from LAAP's past and recent practices of disposing of hazardous industrial wastes. Initial Army investigations in 1979, including analysis of water taken from a series of thirty (30) test wells, showed evidence that 17 unlined wastewater ponds containing wastes from ammunition production (16 TNT "pink water" ponds), metal finishing/cleaning and paint stripping operations and two inactive landfills on-site are leaching contaminants such as hydrogen sulfide, TNT, DNT, RDX, Tetryl and lead into the shallow water aquifer under the Plant site. The Army reported their findings in a 5/80 meeting with interested Federal and State agencies and outlined plans for additional investigations to determine the extent of migration of the contaminants and the potential threat to private water supply wells also utilizing the shallow aquifer. Eighteen additional wells were drilled and tested to determine contaminant migration beyond the LAAP boundary. The investigation report says results are negative. An additional 33 wells were drilled to identify the extent of the migration on-post and whether it is continuing. A draft report of the findings and recommendations for corrective measures was received in 8/82 by LAAP. The final report is expected in 10/82.

EPA's Solid and Hazardous Waste Research Division (SHWRD) at the Cincinnati MERL is presently working with the Army at LAAP on a remedial action research effort designed to demonstrate the effectiveness of a sludge treatment technique on the closure of one of the LAAP industrial waste ponds which could be applied to other similar lagoons or ponds. The demonstration project will be conducted under controlled operational conditions on the M-4 Lagoon (wastewater and sludge from a former cadmium electroplating operation) and will be designed to integrate with remedial and ponds closure work at LAAP's TNT pink water ponds and other Army research at similar lagoons elsewhere. The M-4 Lagoon closure-demonstration project is being closely coordinated by SHWRD and LAAP with the Louisiana DNR and EPA regional offices.

8. KIRTLAND AIR FORCE BASE, NEW MEXICO

Problem Media - Hazardous Waste

Problem description - Since the previous status report we received a copy of an Air Force report on initial investigations into past hazardous waste disposal practices and waste disposal sites at KAFB. The report indicates KAFB has six inactive sites with moderate to high potential for contaminant migration into surface or ground waters. These include four former landfills, a radioactive waste burial site and the main Base Fire Training Area. The report recommends additional soil and leachate investigations at each site to determine the existence and magnitude of contaminant migration and necessary corrective measures. There is a possibility that these sites may be contributing to Albuquerque's South Valley ground water pollution problems now under investigation by the State of New Mexico. Neither KAFB nor the Air Force has sent us any information about the status or schedule of any follow-up investigations by the Air Force.

9. AIR FORCE PLANT NO. 83, NEW MEXICO

Problem Media - Hazardous Waste

Problem description - Recent EPA inspections at this Plant have identified several problems with storage and handling of chemical waste materials. These problems have resulted in the discharge of hazardous wastes into surface drainage going into the San Jose Drain to the Rio Grande River, and there is a strong possibility they may also be contributing to contamination of an underground water supply source for the City of Albuquerque. The City's San Jose Well No. 6, and a nearby industrial water well, both located within a half mile of the Air Force Plant, were found to be contaminated with several suspected carcinogenic chemicals, including trichloroethylene and dichloroethylene. These solvents are, or have been, used in the Air Force Plant processes.

Our recent A-106 report to OMB included a recommendation that the Air Force initiate a subsurface monitoring investigation to determine whether there is any apparent migration from the Plant to the ground water. We have also issued an Administrative Order to the Plant for correction of the hazardous waste storage and handling deficiencies identified in our inspection reports. The AO includes a schedule calling for the plant to attain compliance by 9/1/82. Attainment status is currently under review.

10. McALESTER ARMY AMMUNITION PLANT, OKLAHOMA

Problem Media - Hazardous Waste

Problem description - This plant has five lagoons receiving industrial wastes from their ammunition production facilities. There is a possibility that various contaminants, including TNT and heavy metals, may be migrating from these lagoons through the soil into ground or surface waters. In cooperation with the State of Oklahoma, the Army has installed 11 test wells around the lagoons and has been analyzing samples for about 6-7 months. Results of analyses indicate some migration, but monitoring wells arrangement does not allow for identification of problem ponds. Army is sending a geologist to MAAP in 9/82 to evaluate the monitoring program and recommend improvements needed to determine where migrations are originating and corrections are needed. His evaluation report should be available in 12/82. These ponds are all active disposal ponds subject to RCRA permitting and regulation rather than to CERCLA or Superfund cleanup procedures.

11. RED RIVER ARMY DEPOT, TEXAS TX 5[illegible]

Problem Media - Hazardous Waste

Problem description - Initial results from RRAD's ground water monitoring system, installed in response to RCRA regulations, indicate apparent migration of contaminants from two areas of the installation where hazardous wastes are or were being deposited. The OTC (Ordnance Training Center) area contains three former burial sites, and the IWTP (Industrial Waste Treatment Plant) area contains two active industrial waste treatment ponds. RRAD met with Texas RCRA program representatives in Austin in June, 1982, and presented their monitoring results in an Army Groundwater Assessment report, which included recommendations for corrective measures, if deemed necessary. This meeting resulted in a mutual decision to postpone corrective measures and install additional monitoring wells to confirm whether corrective measures are necessary. RRAD is to keep Texas and EPA advised of future monitoring results and possible correction plans.

12. McGREGOR NAVAL INDUSTRIAL WEAPONS PLANT, TEXAS

Problem Media - Hazardous Waste

Problem description - Information had just been received at the time this report was being prepared that Navy investigations into past hazardous waste disposal practices at the McGregor plant have identified two potential problem sites which require further investigation to determine the extent of the problems and appropriate corrective measures. Not much detail is available to us at this time, but the Navy advises the two sites are inactive and involve deposites of asbestos and DDT. The latter deposites were left by a private firm formerly leasing a part of the plant's production facilities to produce DDT. The Navy has developed plans for proposed corrective action and has arranged to discuss them with our EPA regional Superfund program representatives for concurrence and/or recommendations for changes or additions. This meeting is scheduled for 9/22/82 at the McGregor site.

13. LOS ALAMOS NATIONAL LABORATORY, NEW MEXICO

Problem Media - Water NM[illegible]33

Problem description - LANL has a single NPDES permit covering a total of 116 industrial and domestic waste discharges, most of which are minor low pollution potential discharges. Recent monitoring data received from LANL indicate all but seven of the covered discharges are generally complying with the permit limitations. Recent correspondence from LANL advises us that they have several improvement projects underway to bring all the violating discharges into compliance by the end of FY 1982. We are trying to conclude a compliance agreement with LANL, incorporating their current plans and schedule in the agreement. LANL has shown a reluctance to conclude the agreement because of the uncertainty of funds. A CSI inspection by EPA has been scheduled for 9/14-15/82, and the compliance engineer on the LANL permit will accompany the inspectors to review the compliance status and situation at LANL, discuss the findings with the LANL officials and attempt to finalize and conclude the agreement.

14. FORT CHAFFEE, ARKANSAS

Problem Media - Water

Problem description - This facility was housing Cuban refugees, and the extra load on the sewage treatment lagoon system was causing frequent violations of NPDES permit flow and TSS limits. The refugees have been relocated elsewhere, and normal Army training activity has been resumed. However, the lagoon system could not consistently meet permit TSS limits because of the influence of algae in the effluent. Fort Chaffee requested a permit revision that would raise the permit limits on TSS in accordance with EPA's "pond policy" presented in 40 CFR 133.103(c). The Arkansas Department of Pollution Control & Ecology agreed to an EPA proposal to permit Fort Chaffee to modify the analytical procedure for determining TSS to be reported. The modification makes an allowance for the algae influence on the TSS and allows Fort Chaffee to report an adjusted TSS value. A revised permit to replace the expired NPDES permit was issued. Our review of subsequent DMRs indicates Fort Chaffee is able to comply consistently with the adjusted TSS limitation. Since permit compliance has apparently been attained, this facility has been dropped from our list of problem Federal facilities.

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